

ATTACHMENT A
Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Currently Amended) A confocal microscope or endoscope, having:
 - a source of coherent light for illumination of a sample;
 - a light ~~focuser~~focuser for receiving and ~~focussing~~focusing said coherent light to an illumination volume that in use intersects said sample;
 - a beam-splitter for receiving return light returned from said sample in response to said illumination and for diverging from said return light a fluorescent component of said return light; and
 - an imaging optical fibre bundle comprising a plurality of individual fibres, having an entry end located to receive said diverged fluorescent component of said return light so that said diverged fluorescent component is transmitted to an exit end of said fibre bundle;wherein said fibre bundle preserves, between said entry end and said exit end of said fibre bundle, the relative spatial coordinates of the cores of said individual fibres.
2. (Original) A confocal microscope or endoscope as claimed in claim 1, further comprising a single mode fibre for transmitting said coherent light from said source and having an exit end mounted in a fixed spatial relationship to said entry end of said fibre bundle.
3. (Currently Amended) A confocal microscope or endoscope as claimed in ~~either~~ claim 1 ~~or~~ 2, wherein said relative spatial coordinates are transformed between said ends such that an image can still be formed.
4. (Original) A confocal microscope or endoscope as claimed in claim 3, wherein said coordinates are reversed so that a mirror image is formed.

5. (Currently Amended) A confocal microscope or endoscope as claimed in ~~any one of the preceding claims~~ claim 1, wherein said microscope or endoscope is embodied as an ophthalmoscope.

6. (Currently Amended) A confocal microscope or endoscope as claimed in ~~any one of the preceding claims~~ claim 1, wherein said beam-splitter comprises a simple or compound prism.

7. (Currently Amended) A confocal microscope or endoscope as claimed in ~~any one of the preceding claims~~ claim 1, wherein said beam-splitter comprises a transmission or reflection diffraction grating.

8. (Currently Amended) A confocal microscope or endoscope as claimed in ~~any one of the preceding claims~~ claim 1, wherein said microscope or endoscope includes a further beam-splitter, optically reversed relative to said beam-splitter and located optically after said fibre bundle, to improve focal plane isolation.

9. (Currently Amended) A confocal microscope or endoscope as claimed in ~~any one of the preceding claims~~ claim 1, wherein said microscope or endoscope includes a spatial filter optically after said fibre bundle.

10. (Original) A confocal microscope or endoscope as claimed in claim 9, wherein said spatial filter comprises a variable aperture.

11. (Currently Amended) A confocal microscope or endoscope as claimed in ~~any one of the preceding claims~~ claim 1, wherein said microscope or endoscope includes a scanner for providing scanning of said illumination volume relative to said sample.

12. (Original) A confocal microscope or endoscope as claimed in claim 11, wherein said scanner comprises a mirror or a tuning fork.

13. (Original) A confocal microscope or endoscope as claimed in claim 11, wherein said scanner comprises a pivotably mounted member provided with collimating optics for collimating said coherent light.

14. (Original) A confocal microscope or endoscope as claimed in claim 13, wherein said collimating optics comprise a simple or compound lens.

15. (Original) A confocal microscope or endoscope as claimed in claim 13, wherein said pivotably mounted member is mounted by means of, and is pivotable about, an axle.

16. (Currently Amended) A confocal microscope or endoscope as claimed in claim 13, wherein said pivotably mounted member is mounted by means of a pair of flexible supports that differ so that said pivotably mounted member can be ~~pivoted~~pivoted by being oscillated.

17. (Original) A confocal microscope or endoscope as claimed in claim 16, wherein said flexible supports differ in length.

18. (Currently Amended) A confocal microscope or endoscope as claimed in ~~any one of the preceding claims~~ claim 1, including one or more shallow angle prisms located in an image plane to separate out different spectral bands, and a plurality of fibre bundles, each for receiving a respective spectral band, for producing multiple ~~colour~~color images.

19. (Original) A confocal microscope or endoscope as claimed in claim 18, including a plurality of separate photo-detectors, each for detecting a respective spectral band transmitted by a respective one of said fibre bundles.